

Title (en)  
Vacuum pump and vacuum apparatus

Title (de)  
Vakuumpumpe und vakuumvorrichtung

Title (fr)  
Pompe à vide et appareil à vide

Publication  
**EP 0974756 A3 20010912 (EN)**

Application  
**EP 99305787 A 19990721**

Priority  
JP 22234298 A 19980721

Abstract (en)  
[origin: EP0974756A2] A vacuum pump and a vacuum apparatus are provided in which gas suction and discharge force can be adjusted without producing dust. The vacuum apparatus includes a vacuum pump 1 for sucking and discharging gas within a chamber 90. The vacuum pump 1 is provided with a communicating pipe 85 that pierces the casing for communicating between the outside of the apparatus and the rotor blades and the stator blades of the turbomolecular pump section. An inert gas is supplied to the turbomolecular pump section through the communicating pipe 85 so that the inert gas is mixed with the gas that has sucked from the chamber 90. The communicating pipe 85 includes a valve 86, and an open/close operation of the valve 86 is controlled in accordance with an output from a pressure sensor 97 within the chamber 90. An amount of the inert gas to be supplied to the turbomolecular pump section T and then mixed, is adjusted by the valve 86 so that a pressure within the vacuum pump 1 is adjusted, with the result that a gas suction force from the chamber 90 can be adjusted. <IMAGE>

IPC 1-7  
**F04D 19/04**; **F04D 27/00**

IPC 8 full level  
**F04D 19/04** (2006.01); **F04D 27/00** (2006.01)

CPC (source: EP KR US)  
**F04D 19/04** (2013.01 - EP KR US); **F04D 27/00** (2013.01 - EP US)

Citation (search report)

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- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 230 (M - 249) 12 October 1983 (1983-10-12)
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**EP 99305787 A 19990721**; JP 22234298 A 19980721; KR 19990029354 A 19990720; US 35487399 A 19990716